

**WHAT IS CLAIMED IS:**

1. A sensor chip for a sensor guide wire assembly for intravascular measurements of at least one physiological variable in a living body, which sensor chip is adapted to be mounted on a core wire and has a first end portion, a first side of which is provided with a pressure sensitive device, wherein the sensor chip comprises  
a mounting base, which, at a second end of the sensor chip, extends downwards and is adapted for mounting to the core wire such that a clearance is formed between the first end portion and the core wire.
2. A sensor chip according to claim 1, wherein the mounting base is an integrated part of the sensor chip.
3. A sensor chip according to claim 1, wherein the mounting base is attached to the sensor chip.
4. A sensor chip according to claim 1, wherein the shape of an underside of the mounting base is adapted to the shape of the core wire.
5. A sensor chip according to claim 1, wherein the sensor chip further comprises a protective structure.
6. A sensor chip according to claim 5, wherein the protective structure is in the form of two extra elements, which are arranged such that the sensor chip has a H- or U-shaped cross-section.
7. A sensor chip according to claim 5, wherein the protective structure is an integrated part of the sensor chip.
8. A sensor chip according to claim 5, wherein the protective structure is attached to the sensor chip.

9. A sensor chip according to claim 1, wherein the sensor chip comprises a piezoresistive pressure transducer.
10. A sensor guide wire assembly for intravascular measurements of at least one physiological variable in a living body, comprising  
a core wire and a sensor element having a first end portion, a first side of which is provided with a pressure sensitive device, wherein the sensor element has a mounting base, which, at a second end of the sensor element, extends downwards and is adapted for mounting to the core wire such that a clearance is formed between the first end portion and the core wire.
11. A sensor guide wire assembly according to claim 10, wherein the mounting base is an integrated part of the sensor element.
12. A sensor guide wire assembly according to claim 10, wherein the mounting base is attached to the sensor element.
13. A sensor guide wire assembly according to claim 10, wherein the shape of an underside of the mounting base is adapted to the shape of the core wire.
14. A sensor guide wire assembly according to claim 10, wherein the sensor element further comprises a protective structure.
15. A sensor guide wire assembly according to claim 14, wherein the protective structure is in the form of two extra elements, which are arranged such that the sensor element has a H- or U-shaped cross-section.
16. A sensor guide wire assembly according to claim 14, wherein the protective structure is an integrated part of the sensor element.
17. A sensor guide wire assembly according to claim 14, wherein the protective structure is attached to the sensor element.

18. A sensor guide wire assembly according to claim 10, wherein the sensor element comprises a piezoresistive pressure transducer.
19. A method of manufacturing a silicon sensor chip for a sensor guide wire assembly for intravascular measurements of at least one physiological variable in a living body, wherein the sensor chip is provided with a mounting base, which is provided by etching or bonding.
20. A method of manufacturing a silicon sensor chip according to claim 19, wherein the sensor chip is provided with a protective structure, which is provided by etching or bonding.
21. A method of manufacturing a silicon sensor chip according to claim 20, wherein the protective structure is in the form of two extra elements, which are arranged such that the sensor chip has a H- or U-shaped cross-section, which extra elements are provided by etching or bonding.